

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Richland

2800 George Washington Way

Richland, WA 99352

Tel: (509)375-3131

TestAmerica Job ID: 300-3973-1

TestAmerica Sample Delivery Group: WC1449

Client Project/Site: F12-023

For:

CH2M Hill Plateau Remediation Company

PO BOX 1600

Mail Stop R3-50

Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:

10/17/2016 6:39:08 AM

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### LINKS

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*I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this package. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the attached signature.*

*The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples. The sample/ sample duplicate RPD agreement is not applicable if one or both results are less than five times the MDL.*

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## Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

## Qualifiers

## HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.

## General Chemistry

Qualifier	Qualifier Description
Z	Sample was prepped or analyzed beyond the specified holding time
U	Analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

**Case Narrative**

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

**Job ID: 300-3973-1**

**Laboratory: TestAmerica Richland**

**Narrative****Job Narrative  
300-3973-1****Comments**

No additional comments.

**Receipt**

The samples were received on 9/15/2016 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2° C.

**HPLC/IC**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**General Chemistry**

Method 7196A: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: B36YB1 (300-3973-1), B36YB5 (300-3973-2) and B36YB8 (300-3973-3). For more information refer to SIR17-061 attached to report.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**SAMPLE ISSUE RESOLUTION**

**SIR NUM** SIR17-061  
**REV NUM** 0  
**DATE INITIATED** 10/17/2016

**SAMPLE EVENT INFORMATION**

**SAF NUM(S)** F12-023  
**OPERABLE UNIT(S)** 100-HR-3  
**PROJECT(S)** CPP 100 Area  
**SAMPLE EVENT TITLE(S)** 100-DX Pump & Treat  
**LABORATORY** TestAmerica Incorporated, Richland

**SAMPLING INFORMATION**

**NUMBER OF SAMPLES** 3  
**SAMPLE NUMBERS** B36YB1, B36YB5, B36YB8  
**SAMPLE MATRIX** WATER  
**COLLECTION DATE** 9/14/2016 - 9/14/2016  
**SDG NUM** WC1449

**ISSUE BACKGROUND**

**CLASS** Field Sampling Issue  
**TYPE** Analysis Hold Time Exceeded  
**DESCRIPTION** The samples listed above were received with less than half the remaining time on the hold time for Cr VI analysis. As such the samples were analyzed outside of 1x hold time but within 2x hold time.

**DISPOSITION**

**DESCRIPTION** Initiate SIR, report results and include hold time comment in the case narrative

**JUSTIFICATION** Final Disposition: Accept proposed resolution

SUBMITTED BY: Steven Campbell DATE: 10/14/2016  
ACCEPTED BY: Scot Fitzgerald DATE: 10/17/2016

10/17/2016

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F12-023-290	PAGE 1 OF 1	
<b>COLLECTOR</b> Dave Floyd CHPRC		<b>COMPANY CONTACT</b> SUMNER, LC		<b>TELEPHONE NO.</b> 376-3922		<b>PROJECT COORDINATOR</b> SUMNER, LC	<b>PRICE CODE</b> 7H	<b>DATA TURNAROUND</b> 30 Days / 30 Days
<b>SAMPLING LOCATION</b> 100-DX Bldg 1804D Influent Tank valve T-M3 (V-MED006A)		<b>PROJECT DESIGNATION</b> 100-DX Pump and Treat - INFLUENT/EFFLUENT/TRANSFER TANKS - WAT		<b>FIELD LOGBOOK NO.</b> 445-4 109 33		<b>SAF NO.</b> F12-023	<b>AIR QUALITY</b> <input type="checkbox"/>	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE
<b>ICE CHEST NO.</b> N/A		<b>OFFSITE PROPERTY NO.</b> N/A		<b>ACTUAL SAMPLE DEPTH</b> N/A		<b>COA</b> 302841	<b>ORIGINAL</b>	
<b>SHIPPED TO</b> TestAmerica Incorporated, Richland		<b>BILL OF LADING/AIR BILL NO.</b> N/A						
<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/DATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	<b>PRESERVATION</b> Cool-4C	<b>HOLDING TIME</b> 24 Hours	<b>TYPE OF CONTAINER</b> ag	<b>NO. OF CONTAINER(S)</b> 1	<b>VOLUME</b> 60mL	<b>SAMPLE ANALYSIS</b> 7196 CM6; COMMON;	
<b>SPECIAL HANDLING AND/OR STORAGE</b> N/A								
<b>SAMPLE NO.</b> B36YB1	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> 9-14-16	<b>SAMPLE TIME</b> 1115					

300-3973 COC

#3973  
WEC1449

## CHAIN OF POSSESSION

## SIGN/PRINT NAMES

## SPECIAL INSTRUCTIONS

\*\* The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. \*\* The extraction wells associated with this SAF are all located at the Transfer Building.

RELINQUISHED BY/REMOVED FROM Dave Floyd CHPRC	DATE/TIME 9-14-16 1415	RECEIVED BY/STORED IN SSU-1	DATE/TIME 9-14-16 1415
RELINQUISHED BY/REMOVED FROM SEP 15 2016 0730	DATE/TIME SEP 15 2016 0730	RECEIVED BY/STORED IN CHPRC	DATE/TIME SEP 15 2016 0730
RELINQUISHED BY/REMOVED FROM SEP 15 2016 0845	DATE/TIME SEP 15 2016 0845	RECEIVED BY/STORED IN L Anderson, TAP	DATE/TIME SEP 15 2016 0845
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

## TITLE

## DATE/TIME

## DISPOSED BY

## DATE/TIME

LABORATORY SECTION

RECEIVED BY

DISPOSAL METHOD

PRINTED ON 8/22/2016

FSR ID = FSR35525

TRVL NUM = TRVL-16-214

A-6003-618 (REV 2)

10/17/2016

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F12-023-294	PAGE 1 OF 1
<b>COLLECTOR</b> Dave Floyd CHPRC		<b>COMPANY CONTACT</b> SUMNER, LC		<b>TELEPHONE NO.</b> 376-3922		<b>PROJECT COORDINATOR</b> SUMNER, LC	
<b>SAMPLING LOCATION</b> 100-DX Bldg 1804D Effluent Tank valve T-M5 (V-M030A) DUP		<b>PROJECT DESIGNATION</b> 100-DX Pump and Treat - INFLUENT/EFFLUENT/TRANSFER TANKS - WAT		<b>SAF NO.</b> F12-023		<b>PRICE CODE</b> 7H	
<b>ICE CHEST NO.</b> N/A		<b>FIELD LOGBOOK NO.</b> INF-N-645.4 p. 33		<b>ACTUAL SAMPLE DEPTH</b> N/A		<b>AIR QUALITY</b> <input type="checkbox"/> 30 Days / 30 Days	
<b>SHIPPED TO</b> TestAmerica Incorporated, Richland		<b>OFFSITE PROPERTY NO.</b> N/A		<b>COA</b> 302841		<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE	
<b>MATRIX*</b> A=Air DI=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other		<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A		<b>PRESERVATION</b> Cool-4C		<b>BILL OF LADING/AIR BILL NO.</b> N/A	
<b>SPECIAL HANDLING AND/OR STORAGE</b> N/A		<b>HOLDING TIME</b> 24 Hours		<b>NO. OF CONTAINER(S)</b> 1		<b>DATA TURNAROUND</b> 30 Days / 30 Days	
		<b>TYPE OF CONTAINER</b> ag		<b>VOLUME</b> 60mL		<b>ORIGINAL</b>	
		<b>SAMPLE ANALYSIS</b> 7195, C06; COMMON;					
<b>SAMPLE NO.</b> B36YB5	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> 9-14-16	<b>SAMPLE TIME</b> 1135				

#3973  
WEC1449

CHAIN OF POSSESSION		SIGN / PRINT NAMES		SPECIAL INSTRUCTIONS	
<b>RELINQUISHED BY/REMOVED FROM</b> Dave Floyd CHPRC	<b>DATE/TIME</b> 9-14-16 1415	<b>RECEIVED BY/STORED IN</b> SSU-1	<b>DATE/TIME</b> 9-14-16 1415	<b>** The 100 Area S&amp;GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.** The extraction wells associated with this SAF are all located at the Transfer Building.</b>	
<b>RELINQUISHED BY/REMOVED FROM</b> SEP 15 2016 0730	<b>DATE/TIME</b> SEP 15 2016 0730	<b>RECEIVED BY/STORED IN</b> Troy Bacon CHPRC	<b>DATE/TIME</b> SEP 15 2016 0730		
<b>RELINQUISHED BY/REMOVED FROM</b> Troy Bacon CHPRC	<b>DATE/TIME</b> SEP 15 2016 0845	<b>RECEIVED BY/STORED IN</b> Anderson, TARI	<b>DATE/TIME</b> SEP 15 2016 0845		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>LABORATORY SECTION</b>	<b>RECEIVED BY</b>	<b>TITLE</b>			
<b>FINAL SAMPLE DISPOSITION</b>	<b>DISPOSAL METHOD</b>	<b>DISPOSED BY</b>			
		<b>DATE/TIME</b>			

PRINTED ON 8/23/2016

FSR ID = FSR35535

TRVL NUM = TRVL-16-214

A-6003-618 (REV 2)

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F12-023-297	PAGE 1 OF 1			
COLLECTOR	Dave Floyd CHPRC	COMPANY CONTACT	SUNNER, LC	TELEPHONE NO.	376-3922	PROJECT COORDINATOR	SUNNER, LC	PRICE CODE	7H	DATA TURNAROUND
SAMPLING LOCATION	100-DX Bldg 1804D Effluent Tank valve T-M5 (V-MU030A)	PROJECT DESIGNATION	100-DX Pump and Treat - INFLUENT/EFFLUENT/TRANSFER TANKS - WAT				SAF NO.	F12-023	AIR QUALITY	<input type="checkbox"/> 30 Days / 30 Days
ICE CHEST NO.	N/A	FIELD LOGBOOK NO.	HNF-N-448-4 pg 33		ACTUAL SAMPLE DEPTH	N/A	COA	302841	METHOD OF SHIPMENT	GOVERNMENT VEHICLE
SHIPPED TO	TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO.	N/A			BILL OF LADING/AIR BILL NO.	N/A			
MATRIX*	A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/ATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A							
	SPECIAL HANDLING AND/OR STORAGE	PRESERVATION	Cool--4C							
		HOLDING TIME	24 Hours							
		TYPE OF CONTAINER	ag							
		NO. OF CONTAINER(S)	1							
		VOLUME	60mL							
		SAMPLE ANALYSIS	7195, CR6; COMMON;							
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B36YB8	WATER	9-14-14	1135							

#3973  
WC1449

CHAIN OF POSSESSION		SIGN / PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Dave Floyd CHPRC	DATE/TIME 9-14-16 1415	RECEIVED BY/STORED IN SSU-1	DATE/TIME 9-14-16 1415	<p><b>** The 100 Area S&amp;GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. **</b> The extraction wells associated with this SAF are all located at the Transfer Building.</p>	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME SEP 15 2016 0730	RECEIVED BY/STORED IN CHPRC Troy B. Bacon	DATE/TIME SEP 15 2016 0730		
RELINQUISHED BY/REMOVED FROM Troy Bacon CHPRC	DATE/TIME SEP 15 2016 0845	RECEIVED BY/STORED IN L. Anderson TARI	DATE/TIME SEP 15 2016 0845		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME	



CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F12-023-291	PAGE 1 OF 1
<b>COLLECTOR</b> Dave Floyd CHPRC	<b>COMPANY CONTACT</b> SUMNER, LC	<b>TELEPHONE NO.</b> 376-3922	<b>PROJECT COORDINATOR</b> SUMNER, LC	<b>PRICE CODE</b> 7H	<b>DATA TURNAROUND</b> 30 Days / 30 Days		
<b>SAMPLING LOCATION</b> 100-DX Bldg 1804D Influent Tank valve T-M3 (V-MED06A)	<b>PROJECT DESIGNATION</b> 100-DX Pump and Treat - INFLUENT/EFFLUENT/TRANSFER TANKS - WAT	<b>FIELD LOGBOOK NO.</b> HNF-645-4	<b>ACTUAL SAMPLE DEPTH</b> N/A	<b>SAF NO.</b> F12-023	<b>AIR QUALITY</b> <input type="checkbox"/>	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE	<b>ORIGINAL</b>
<b>ICE CHEST NO.</b> N/A	<b>OFFSITE PROPERTY NO.</b> N/A	<b>COA</b> 3028+1	<b>BILL OF LADING/AIR BILL NO.</b> N/A				
<b>SHIPPED TO</b> TestAmerica Incorporated, Richland							
<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/ATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A.		<b>PRESERVATION</b> Cool <=6C	<b>HOLDING TIME</b> 28 Days/48 Hours	<b>TYPE OF CONTAINER</b> P	<b>NO. OF CONTAINER(S)</b> 1	<b>VOLUME</b> 500mL
<b>SPECIAL HANDLING AND/OR STORAGE</b> N/A	<b>SAMPLE ANALYSIS</b>		<b>SEE ITEM (1) IN SPECIAL INSTRUCTIONS</b>				
<b>SAMPLE NO.</b> B36YB2	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> 9-14-16	<b>SAMPLE TIME</b> 1115				

#3973  
WTC1449

## CHAIN OF POSSESSION

## SIGN/ PRINT NAMES

## SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	TITLE	DATE/TIME
RELINQUISHED BY/REMOVED FROM Dave Floyd CHPRC	9-14-16 1415	RECEIVED BY/STORED IN SSU-1	9-14-16 1415		
RELINQUISHED BY/REMOVED FROM SEP 15 2016 0730	DATE/TIME	RECEIVED BY/STORED IN Troy Bacon CHPRC	SEP 15 2016 0730		
RELINQUISHED BY/REMOVED FROM Troy Bacon CHPRC	SEP 15 2016 0845	RECEIVED BY/STORED IN L Anderson, TARI	SEP 15 2016 0845		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

\*\* The 100 Area S8GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. \*\* The extraction wells associated with this SAF are all located at the Transfer Building.  
(1) 300.0\_ANIONS\_IC: COMMON {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}; 300.0\_ANIONS\_IC: COMMON (Add-on) {Phosphorus in phosphate};

## LABORATORY SECTION

## RECEIVED BY

## TITLE

## DATE/TIME

## FINAL SAMPLE DISPOSITION

## DISPOSAL METHOD

## DISPOSED BY

## DATE/TIME

PRINTED ON 8/22/2016

FSR ID = FSR35525

TRVL NUM = TRVL-16-214

A-6003-618 (REV 2)

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F12-023-295	PAGE 1 OF 1			
<b>COLLECTOR</b>	Dave Floyd CHPRC	<b>COMPANY CONTACT</b>	SUMNER, LC	<b>TELEPHONE NO.</b>	376-3922	<b>PROJECT COORDINATOR</b>	SUMNER, LC			
<b>SAMPLING LOCATION</b>	100-DX Bldg 1804D Effluent Tank valve T-M5 (V-MD030A) DUP	<b>PROJECT DESIGNATION</b>	100-DX Pump and Treat - INFLUENT/EFFLUENT/TRANSFER TANKS - WAT		<b>SAF NO.</b>	F12-023	<b>PRICE CODE</b>	7H		
<b>ICE CHEST NO.</b>	N/A	<b>FIELD LOGBOOK NO.</b>	HNF-N-645-4	<b>ACTUAL SAMPLE DEPTH</b>	N/A	<b>COA</b>	302841	<b>AIR QUALITY</b>	<input type="checkbox"/>	
<b>SHIPPED TO</b>	TestAmerica Incorporated, Richland	<b>OFFSITE PROPERTY NO.</b>	N/A	<b>BILL OF LADING/AIR BILL NO.</b>	N/A	<b>METHOD OF SHIPMENT</b>	GOVERNMENT VEHICLE	<b>DATA TURNAROUND</b>	30 Days / 30 Days	
<b>MATRIX*</b>	A=Air DL=Drum L=Liquid DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b>	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/ATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A		<b>PRESERVATION</b>	Cool <=6C	<b>HOLDING TIME</b>	28 Days/48 Hours	<b>TYPE OF CONTAINER</b>	P
<b>SPECIAL HANDLING AND/OR STORAGE</b>	N/A	<b>SAMPLE ANALYSIS</b>	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		<b>NO. OF CONTAINER(S)</b>	1	<b>VOLUME</b>	500mL	#3973 WEL1449	
<b>SAMPLE NO.</b>	B36YB6	<b>MATRIX*</b>	WATER	<b>SAMPLE DATE</b>	9-14-16	<b>SAMPLE TIME</b>	1135			

CHAIN OF POSSESSION		SIGN/PRINT NAMES		SPECIAL INSTRUCTIONS	
<b>RELINQUISHED BY/REMOVED FROM</b>	Dave Floyd CHPRC	<b>DATE/TIME</b>	9-14-16 1415	<b>RECEIVED BY/STORED IN</b>	SSU-1 Troy Bacon CHPRC
<b>RELINQUISHED BY/REMOVED FROM</b>	SSU-1	<b>DATE/TIME</b>	SEP 15 2016 0730	<b>RECEIVED BY/STORED IN</b>	SEP 15 2016 0730
<b>RELINQUISHED BY/REMOVED FROM</b>	Troy Bacon CHPRC	<b>DATE/TIME</b>	SEP 15 2016 0845	<b>RECEIVED BY/STORED IN</b>	L. Anderson, TARL
<b>RELINQUISHED BY/REMOVED FROM</b>		<b>DATE/TIME</b>		<b>RECEIVED BY/STORED IN</b>	
<b>RELINQUISHED BY/REMOVED FROM</b>		<b>DATE/TIME</b>		<b>RECEIVED BY/STORED IN</b>	
<b>RELINQUISHED BY/REMOVED FROM</b>		<b>DATE/TIME</b>		<b>RECEIVED BY/STORED IN</b>	
<b>RELINQUISHED BY/REMOVED FROM</b>		<b>DATE/TIME</b>		<b>RECEIVED BY/STORED IN</b>	
<b>RELINQUISHED BY/REMOVED FROM</b>		<b>DATE/TIME</b>		<b>RECEIVED BY/STORED IN</b>	
<b>RELINQUISHED BY/REMOVED FROM</b>		<b>DATE/TIME</b>		<b>RECEIVED BY/STORED IN</b>	
<b>LABORATORY SECTION</b>	<b>RECEIVED BY</b>	<b>TITLE</b>	<b>DATE/TIME</b>	<b>DISPOSED BY</b>	<b>DATE/TIME</b>
<b>FINAL SAMPLE DISPOSITION</b>	<b>DISPOSAL METHOD</b>				

PRINTED ON 8/23/2016

FSR ID = FSR35535

TRVL NUM = TRVL-16-214

A-6003-618 (REV 2)

\*\* The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. \*\* The extraction wells associated with this SAF are all located at the Transfer Building.  
(1) 300.0\_ANIONS\_IC: COMMON {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}; 300.0\_ANIONS\_IC: COMMON (Add-on) {Phosphorus in phosphate};

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F12-023-298	PAGE 1 OF 1
<b>COLLECTOR</b> Dave Floyd CHPRC	<b>COMPANY CONTACT</b> SUMNER, LC	<b>TELEPHONE NO.</b> 376-3922	<b>PROJECT COORDINATOR</b> SUMNER, LC	<b>PRICE CODE</b> 7H	<b>DATA TURNAROUND</b> 30 Days / 30 Days		
<b>SAMPLING LOCATION</b> 100-DX Bldg 1804D Effluent Tank valve T-M5 (V-MD030A)	<b>PROJECT DESIGNATION</b> 100-DX Pump and Treat - INFLUENT/EFFLUENT/TRANSFER TANKS - WAT	<b>SAF NO.</b> F12-023	<b>AIR QUALITY</b> <input type="checkbox"/>	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE	<b>ORIGINAL</b>		
<b>ICE CHEST NO.</b> N/A	<b>FIELD LOGBOOK NO.</b> HNF-645-4	<b>ACTUAL SAMPLE DEPTH</b> N/A	<b>COA</b> 302841	<b>BILL OF LADING/AIR BILL NO.</b> N/A			
<b>SHIPPED TO</b> TestAmerica Incorporated, Richland	<b>OFFSITE PROPERTY NO.</b> N/A						
<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/ATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	<b>PRESERVATION</b> Cool <=6C	<b>HOLDING TIME</b> 28 Days/48 Hours	<b>TYPE OF CONTAINER</b> P	<b>NO. OF CONTAINER(S)</b> 1	<b>VOLUME</b> 500ml	<b>SAMPLE ANALYSIS</b> SEE ITEM (1) IN SPECIAL INSTRUCTIONS
<b>SPECIAL HANDLING AND/OR STORAGE</b> N/A							
<b>SAMPLE NO.</b> B36YB9	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> 9-14-16	<b>SAMPLE TIME</b> 1135				

#3973  
WCE1449

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
<b>RELINQUISHED BY/REMOVED FROM</b> Dave Floyd CHPRC	<b>DATE/TIME</b> 9-14-16 1415	<b>RECEIVED BY/STORED IN</b> SSU-1	<b>DATE/TIME</b> 9-14-16 1415	<b>** The 100 Area S&amp;GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.** The extraction wells associated with this SAF are all located at the Transfer Building. (1) 300.0_ANIONS_IC: COMMON {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}; 300.0_ANIONS_IC: COMMON (Add-on) {Phosphorus in phosphate};</b>	
<b>RELINQUISHED BY/REMOVED FROM</b> SSU-1	<b>DATE/TIME</b> SEP 15 2016 0730	<b>RECEIVED BY/STORED IN</b> Toy Bacon CHPRC	<b>DATE/TIME</b> SEP 15 2016 0730		
<b>RELINQUISHED BY/REMOVED FROM</b> Toy Bacon CHPRC	<b>DATE/TIME</b> SEP 15 2016 0845	<b>RECEIVED BY/STORED IN</b> L Anderson, IRL	<b>DATE/TIME</b> SEP 15 2016 0845		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>		
<b>LABORATORY SECTION</b>	<b>RECEIVED BY</b>	<b>TITLE</b>	<b>DATE/TIME</b>		
<b>FINAL SAMPLE DISPOSITION</b>	<b>DISPOSAL METHOD</b>	<b>DISPOSED BY</b>	<b>DATE/TIME</b>		

## Detection Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

## Client Sample ID: B36YB1

## Lab Sample ID: 300-3973-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.031	Z	0.0040	0.0015	mg/L	1		7196A	Total/NA

## Client Sample ID: B36YB5

## Lab Sample ID: 300-3973-2

No Detections.

## Client Sample ID: B36YB8

## Lab Sample ID: 300-3973-3

No Detections.

## Client Sample ID: B36YB2

## Lab Sample ID: 300-3973-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.5	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.15	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	200	D	5.0	2.5	mg/L	20		300.0	Total/NA

## Client Sample ID: B36YB6

## Lab Sample ID: 300-3973-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.15	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	190	D	5.0	2.5	mg/L	20		300.0	Total/NA

## Client Sample ID: B36YB9

## Lab Sample ID: 300-3973-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.15	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	190	D	5.0	2.5	mg/L	20		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

## Client Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

Client Sample ID: B36YB1

Date Collected: 09/14/16 11:15

Date Received: 09/15/16 08:45

Lab Sample ID: 300-3973-1

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.031	Z	0.0040	0.0015	mg/L	-		09/15/16 11:51	1

Client Sample ID: B36YB5

Date Collected: 09/14/16 11:35

Date Received: 09/15/16 08:45

Lab Sample ID: 300-3973-2

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U Z	0.0040	0.0015	mg/L	-		09/15/16 11:52	1

Client Sample ID: B36YB8

Date Collected: 09/14/16 11:35

Date Received: 09/15/16 08:45

Lab Sample ID: 300-3973-3

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U Z	0.0040	0.0015	mg/L	-		09/15/16 11:52	1

Client Sample ID: B36YB2

Date Collected: 09/14/16 11:15

Date Received: 09/15/16 08:45

Lab Sample ID: 300-3973-4

Matrix: Water

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16	D	0.40	0.20	mg/L	-		09/15/16 19:09	2
Nitrate as N	5.5	D	0.056	0.028	mg/L	-		09/15/16 19:09	2
Fluoride	0.15	D	0.10	0.050	mg/L	-		09/15/16 19:09	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L	-		09/15/16 19:09	2
Orthophosphate as P	0.82	U D	1.6	0.82	mg/L	-		09/15/16 21:54	20
Sulfate	200	D	5.0	2.5	mg/L	-		09/15/16 21:54	20

Client Sample ID: B36YB6

Date Collected: 09/14/16 11:35

Date Received: 09/15/16 08:45

Lab Sample ID: 300-3973-5

Matrix: Water

## Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17	D	0.40	0.20	mg/L	-		09/15/16 19:54	2
Nitrate as N	5.7	D	0.056	0.028	mg/L	-		09/15/16 19:54	2
Fluoride	0.15	D	0.10	0.050	mg/L	-		09/15/16 19:54	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L	-		09/15/16 19:54	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L	-		09/15/16 19:54	2
Sulfate	190	D	5.0	2.5	mg/L	-		09/15/16 22:40	20

TestAmerica Richland

## Client Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

**Client Sample ID: B36YB9****Lab Sample ID: 300-3973-6****Date Collected: 09/14/16 11:35****Matrix: Water****Date Received: 09/15/16 08:45****Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17	D	0.40	0.20	mg/L			09/15/16 20:09	2
Nitrate as N	5.7	D	0.056	0.028	mg/L			09/15/16 20:09	2
Fluoride	0.15	D	0.10	0.050	mg/L			09/15/16 20:09	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			09/15/16 20:09	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			09/15/16 20:09	2
Sulfate	190	D	5.0	2.5	mg/L			09/15/16 22:55	20

## QC Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-5661/5

Matrix: Water

Analysis Batch: 5661

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.028	0.014	mg/L			09/15/16 18:39	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			09/15/16 18:39	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			09/15/16 18:39	1

Lab Sample ID: LCS 300-5661/6

Matrix: Water

Analysis Batch: 5661

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.43		mg/L		107	80 - 120
Nitrite as N	3.04	3.27		mg/L		107	80 - 120
Orthophosphate as P	6.53	6.96		mg/L		107	80 - 120

Lab Sample ID: 300-3973-4 MS

Matrix: Water

Analysis Batch: 5661

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.5	D	0.452	5.93	D	mg/L		102	75 - 125
Nitrite as N	0.038	U D	0.609	0.559	D	mg/L		92	75 - 125

Lab Sample ID: 300-3973-4 MS

Matrix: Water

Analysis Batch: 5661

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Orthophosphate as P	0.82	U D	13.1	11.9	D	mg/L		91	75 - 125

Lab Sample ID: 300-3973-4 DU

Matrix: Water

Analysis Batch: 5661

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	5.5	D	5.48	D	mg/L		0.07	20
Nitrite as N	0.038	U D	0.038	U D	mg/L		NC	20

Lab Sample ID: 300-3973-4 DU

Matrix: Water

Analysis Batch: 5661

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Orthophosphate as P	0.82	U D	0.82	U D	mg/L		NC	20

Lab Sample ID: MB 300-5662/5

Matrix: Water

Analysis Batch: 5662

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			09/15/16 18:39	1

TestAmerica Richland



## QC Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 300-5662/5

Matrix: Water

Analysis Batch: 5662

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.025	U	0.050	0.025	mg/L			09/15/16 18:39	1
Sulfate	0.13	U	0.25	0.13	mg/L			09/15/16 18:39	1

Lab Sample ID: LCS 300-5662/6

Matrix: Water

Analysis Batch: 5662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	16.9		mg/L		106	80 - 120
Fluoride	4.00	4.24		mg/L		106	80 - 120
Sulfate	20.0	21.3		mg/L		107	80 - 120

Lab Sample ID: 300-3973-4 MS

Matrix: Water

Analysis Batch: 5662

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16	D	3.20	19.5	D	mg/L		105	75 - 125
Fluoride	0.15	D	0.800	0.918	D	mg/L		96	75 - 125

Lab Sample ID: 300-3973-4 MS

Matrix: Water

Analysis Batch: 5662

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	200	D	40.0	242	D	mg/L		109	75 - 125

Lab Sample ID: 300-3973-4 DU

Matrix: Water

Analysis Batch: 5662

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	16	D	16.2	D	mg/L		0.1	20
Fluoride	0.15	D	0.151	D	mg/L		0.4	20

Lab Sample ID: 300-3973-4 DU

Matrix: Water

Analysis Batch: 5662

Client Sample ID: B36YB2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	200	D	199	D	mg/L		0	20

TestAmerica Richland



## QC Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

## Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-5673/3

Matrix: Water

Analysis Batch: 5673

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		09/15/16 11:48	1

Lab Sample ID: LCS 300-5673/4

Matrix: Water

Analysis Batch: 5673

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.251		mg/L	-	101	80 - 120

Lab Sample ID: 300-3973-1 MS

Matrix: Water

Analysis Batch: 5673

Client Sample ID: B36YB1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.031	Z	0.0500	0.0824		mg/L	-	103	75 - 125

Lab Sample ID: 300-3973-1 DU

Matrix: Water

Analysis Batch: 5673

Client Sample ID: B36YB1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.031	Z	0.0309		mg/L	-	0.6	20

## QC Association Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

## HPLC/IC

## Analysis Batch: 5661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3973-4	B36YB2	Total/NA	Water	300.0	
300-3973-4	B36YB2	Total/NA	Water	300.0	
300-3973-5	B36YB6	Total/NA	Water	300.0	
300-3973-6	B36YB9	Total/NA	Water	300.0	
MB 300-5661/5	Method Blank	Total/NA	Water	300.0	
LCS 300-5661/6	Lab Control Sample	Total/NA	Water	300.0	
300-3973-4 MS	B36YB2	Total/NA	Water	300.0	
300-3973-4 MS	B36YB2	Total/NA	Water	300.0	
300-3973-4 DU	B36YB2	Total/NA	Water	300.0	
300-3973-4 DU	B36YB2	Total/NA	Water	300.0	

## Analysis Batch: 5662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3973-4	B36YB2	Total/NA	Water	300.0	
300-3973-4	B36YB2	Total/NA	Water	300.0	
300-3973-5	B36YB6	Total/NA	Water	300.0	
300-3973-5	B36YB6	Total/NA	Water	300.0	
300-3973-6	B36YB9	Total/NA	Water	300.0	
300-3973-6	B36YB9	Total/NA	Water	300.0	
MB 300-5662/5	Method Blank	Total/NA	Water	300.0	
LCS 300-5662/6	Lab Control Sample	Total/NA	Water	300.0	
300-3973-4 MS	B36YB2	Total/NA	Water	300.0	
300-3973-4 MS	B36YB2	Total/NA	Water	300.0	
300-3973-4 DU	B36YB2	Total/NA	Water	300.0	
300-3973-4 DU	B36YB2	Total/NA	Water	300.0	

## General Chemistry

## Analysis Batch: 5673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3973-1	B36YB1	Total/NA	Water	7196A	
300-3973-2	B36YB5	Total/NA	Water	7196A	
300-3973-3	B36YB8	Total/NA	Water	7196A	
MB 300-5673/3	Method Blank	Total/NA	Water	7196A	
LCS 300-5673/4	Lab Control Sample	Total/NA	Water	7196A	
300-3973-1 MS	B36YB1	Total/NA	Water	7196A	
300-3973-1 DU	B36YB1	Total/NA	Water	7196A	

## Lab Chronicle

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

**Client Sample ID: B36YB1**

**Date Collected: 09/14/16 11:15**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5673	09/15/16 11:51	RLC	TAL RCH

**Client Sample ID: B36YB5**

**Date Collected: 09/14/16 11:35**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5673	09/15/16 11:52	RLC	TAL RCH

**Client Sample ID: B36YB8**

**Date Collected: 09/14/16 11:35**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5673	09/15/16 11:52	RLC	TAL RCH

**Client Sample ID: B36YB2**

**Date Collected: 09/14/16 11:15**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			5661	09/15/16 19:09	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5662	09/15/16 19:09	RLC	TAL RCH
Total/NA	Analysis	300.0		20			5661	09/15/16 21:54	RLC	TAL RCH
Total/NA	Analysis	300.0		20			5662	09/15/16 21:54	RLC	TAL RCH

**Client Sample ID: B36YB6**

**Date Collected: 09/14/16 11:35**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			5661	09/15/16 19:54	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5662	09/15/16 19:54	RLC	TAL RCH
Total/NA	Analysis	300.0		20			5662	09/15/16 22:40	RLC	TAL RCH

**Client Sample ID: B36YB9**

**Date Collected: 09/14/16 11:35**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			5661	09/15/16 20:09	RLC	TAL RCH

TestAmerica Richland

## Lab Chronicle

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

**Client Sample ID: B36YB9**

**Date Collected: 09/14/16 11:35**

**Date Received: 09/15/16 08:45**

**Lab Sample ID: 300-3973-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			5662	09/15/16 20:09	RLC	TAL RCH
Total/NA	Analysis	300.0		20			5662	09/15/16 22:55	RLC	TAL RCH

**Client Sample ID: Method Blank**

**Date Collected: N/A**

**Date Received: N/A**

**Lab Sample ID: MB 300-5661/5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			5661	09/15/16 18:39	RLC	TAL RCH

**Client Sample ID: Method Blank**

**Date Collected: N/A**

**Date Received: N/A**

**Lab Sample ID: MB 300-5662/5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			5662	09/15/16 18:39	RLC	TAL RCH

**Client Sample ID: Method Blank**

**Date Collected: N/A**

**Date Received: N/A**

**Lab Sample ID: MB 300-5673/3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5673	09/15/16 11:48	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**

**Date Collected: N/A**

**Date Received: N/A**

**Lab Sample ID: LCS 300-5661/6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			5661	09/15/16 18:54	RLC	TAL RCH

**Client Sample ID: Lab Control Sample**

**Date Collected: N/A**

**Date Received: N/A**

**Lab Sample ID: LCS 300-5662/6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			5662	09/15/16 18:54	RLC	TAL RCH

## Lab Chronicle

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-5673/4**

**Date Collected: N/A**

**Matrix: Water**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5673	09/15/16 11:48	RLC	TAL RCH

**Client Sample ID: B36YB1**

**Lab Sample ID: 300-3973-1 MS**

**Date Collected: 09/14/16 11:15**

**Matrix: Water**

**Date Received: 09/15/16 08:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			5673	09/15/16 11:48	RLC	TAL RCH

**Client Sample ID: B36YB2**

**Lab Sample ID: 300-3973-4 MS**

**Date Collected: 09/14/16 11:15**

**Matrix: Water**

**Date Received: 09/15/16 08:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			5661	09/15/16 19:24	RLC	TAL RCH
Total/NA	Analysis	300.0		2			5662	09/15/16 19:24	RLC	TAL RCH
Total/NA	Analysis	300.0		20			5661	09/15/16 22:09	RLC	TAL RCH
Total/NA	Analysis	300.0		20			5662	09/15/16 22:09	RLC	TAL RCH

**Laboratory References:**

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

## Method Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
7196A	Chromium, Hexavalent	SW846	TAL RCH

**Protocol References:**

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

## Sample Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F12-023

TestAmerica Job ID: 300-3973-1  
SDG: WC1449

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3973-1	B36YB1	Water	09/14/16 11:15	09/15/16 08:45
300-3973-2	B36YB5	Water	09/14/16 11:35	09/15/16 08:45
300-3973-3	B36YB8	Water	09/14/16 11:35	09/15/16 08:45
300-3973-4	B36YB2	Water	09/14/16 11:15	09/15/16 08:45
300-3973-5	B36YB6	Water	09/14/16 11:35	09/15/16 08:45
300-3973-6	B36YB9	Water	09/14/16 11:35	09/15/16 08:45

## Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3973-1

SDG Number: WC1449

Login Number: 3973

List Number: 1

Creator: Anderson, Lori F

List Source: TestAmerica Richland

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	